DOCUMENT RESUME

ED 152 708 SP 012 372

AUTHOR Lamberti, Joseph; Pratt, Robert

TITLE Instructional Assessment.
INSTITUTION Grinnell-Newburg Community School District, Iowa.
PUB DATE 78
NOTE 36p.; Best copy available

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Educational Assessment; Educational Objectives; *Elementary Secondary Education; *Needs Assessment; Program Development; Research Utilization; *School Surveys; *Teacher Response

ABSTRACT

A needs assessment effort was undertaken by a local school system in response to a state of Iowa mandate to aid in the development of long-range responses to program needs. All teachers of the Grinnell Community School District were asked to respond to the 50-item questionnaire "Instructional Assessment Instrument" (included in the document). Part two of the report details the results of the study and presents various interpretations of the data. Part three offers suggestions for both short-range and long-range goals that would meet needs identified through the district survey. (MJB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED152708

INSTRUCTIONAL ASSESSMENT

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Joseph Lamberti

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

BEST COPY AVAILABLE

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A REPORT PREPARED FOR THE STUDENTS, TEACHERS, ADMINISTRATORS AND COMMUNITY OF THE GRINNELL-NEWBURG COMMUNITY SCHOOL DISTRICT.

SUBMITTED BY: JOSEPH LAMBERTI
ROBERT PRATT

SP012 372

TABLE OF CONTENTS

		PAGE
Preface		i
List of Tables		ii
List of Figures		ii
Part I	Introduction	
	Rationale for Study	1
	Model Interpretation	3
	Procedures and Data Collection	7
Part II	Results of the Study	
	Data Analysis and Interpretation	12
Part III	Recommendations and Conclusions	
	Recommendations	26
	Conclusions	28

LIST OF TABLES

Page

Table 1 Definition of Instruction Model..... 5

Table 2 Teacher Responses to Individual Questions..... 13

Table 3 Overall Model Categories..... 15

Table 4 Categorical Definition of Instruction Model..... 16

Table 5 Categorical Teacher Response by Grade Level..... 19

Table 6 Rank Order Categorical Response..... 21

LIST OF FIGURES

Figure 1 Instructional Model..... 4

Figure 2 Instructional Assessment Instruments..... 8

Figure 3 Elementary Distribution of Categorical Means... 22

Figure 4 Junior High Distribution of Categorical Means.. 23

Figure 5 Senior High Distribution of Categorical Means.. 24

Figure 6 Overall Distribution of Categorical Means..... 25

PART I

INTRODUCTION

RATIONALE FOR STUDY

This study was undertaken for two major reasons. First, the Iowa Legislature through the Department of Public Instruction has required each school district in the state to undertake a needs assessment that will help in designing long range plans for educational programs in each respective district. More importantly, in the minds of the writers, was that the administration of the district saw a need to have this study done. The administration knew that the teachers would be the people to best decide what avenues to take in imporving instruction, and proceeded with a study that would allow them to do just that. The results and suggested recommendations are not anyone's but the professional staff of the district.

In any school system, a thorough self-evaluation of existing practices should be a regular undertaking. Too often school professionals get caught up in the day by day operation of classroom activities and fail to keep the long range goals of education in mind. This study allowed the teachers to take a look at the many components of their instructional program and to assess how they felt they were achieving certain standards. With these results, meaningful staff development can begin.

One major concern of educators today revolves around well-planned and relevant in-service activities that lead to meaningful staff development. One result of this study should be that the administration and the Curriculum Committee can begin to plan such activities for the district. Since the staff itself has recognized certain areas of concern, planning both short-range and long-range in-service activities should be easier to accomplish.

Because Grinnell's professional staff is concerned about the education of the children in their district, the results and recommendations of this study will be put to good use in improving the overall instructional program for every teacher. Future plans and programs should be designed to help each teacher reach their maximum potential as an educator. The process will not be an easy one, but will certainly be worth every effort.

MODEL INTEPRETATION

The General Instructional Model

Human development is essentially a learning process by which learners assimilate information from their environment, code it into patterns and images and use it as new organized patterns to reshape their environment. The general instructional model is little more than a restatement of this basic learning process. The model assists in analyzing this process so that it can be used to organize learning for groups of people in a formal educational setting. The objective of formal education should be to facilitate the continuation of learning throughout life. The content and procedural tools to accomplish the objective of continuous life-time learning, in the hands of the educational planner, become the goals and objectives of the general instructional model. The resources necessary to bring about human growth and development are the inputs into the general instructional model. These inputs include the student as both an input and an output of the system, along with the teacher, the materials, and the facilities that are used in the formal class setting. The operations of the model represent the transactions between the human and physical resources which are inputs to the system, and the learning and teaching strategies that put them all together. The outputs of the system are students who, if they have internalized the knowledge and procedures of the instructional system as specified in its objectives, go on to other instructional sequences. If their behavior hasn't been changed, they complete the same learning cycle again.

Figure I presents a graphic representation of the instructional model and Table I presents the narrative definition of the model's components. Further explanation of the model and its components are provided in later analysis of the study.

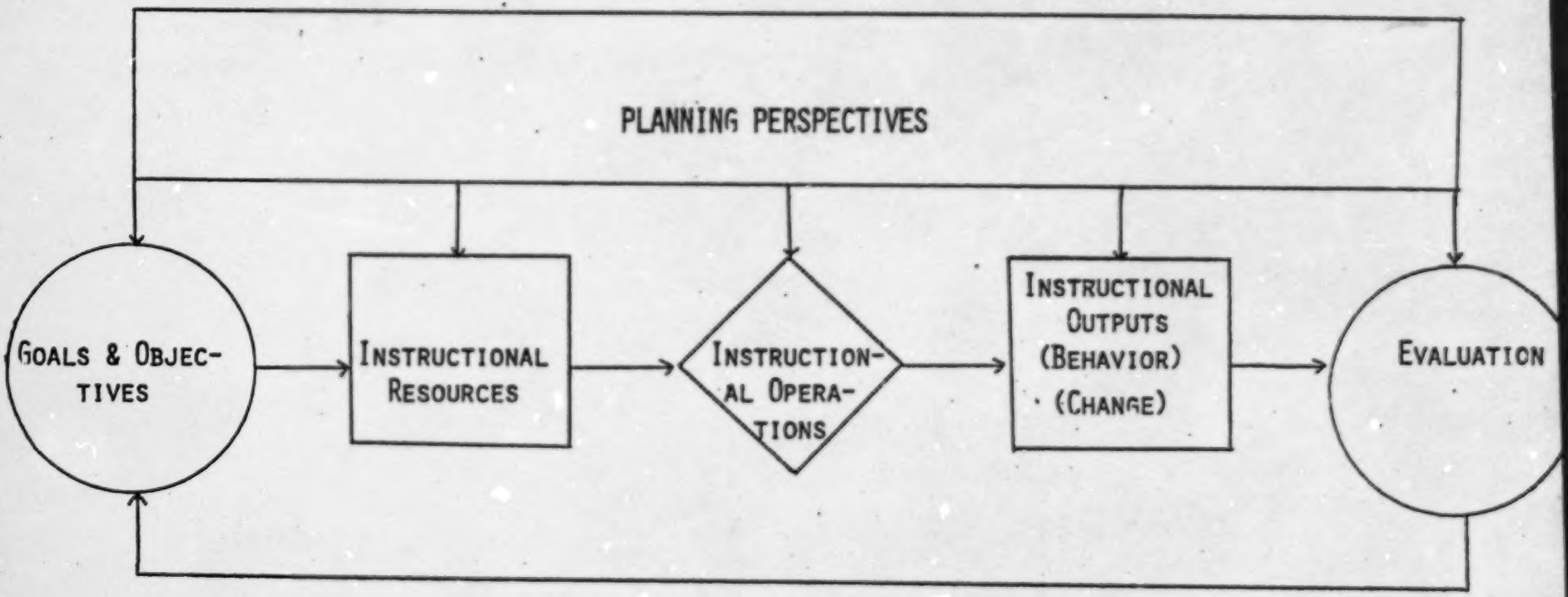


FIGURE 1
INSTRUCTIONAL MODEL

Table 1

MODEL DEFINITIONS

Planning Perspectives

The planning perspectives as defined by a school system would involve a systematic treatment of the entire instructional model prior to the teaching of any instructional program.

Goals and Objectives

The component dealing with goals and objectives will vary from setting to setting. The questions covering this part of the model try to ascertain whether there are clearly identified district-wide goals and objectives, who is involved in determining them and whether the program is designed to meet these stated goals.

Instructional Resources

The basic assumption underlying the way instructional resources are treated in the model is that these resources are limited by time, space, and human considerations. Teachers are considered an instructional input with time being the major constraint placed on them. This requires teachers to allocate their own time resources into learning activities that have maximum payoff. Students are also resources of the system and instructional decisions must factor in the students' entering knowledge levels, the students' learning styles and the fact that learning devoted to one area of student need has a cost in terms of all the other (alternative) uses that could be made of the students' time. Materials and facilities are also inputs into instruction, and choices must be made on the most efficient and effective use of these physical resources.

Instructional Operations

The instructional operations of the model are the interactions that take place among the instructional resources to create the act of student learning that is central to the instructional system. This is the point in which teachers, students, and facilities come together to constitute what is called the learning-thinking-acting process. This process is also commonly called "Teaching".

Instructional Outputs
(Behavior Change)

If objectives are defined operationally then learning can be defined as the behavior change that results from the various instructional operations. Change must be planned so it comes about through an interaction between resource inputs and instructional operations. These interactions in the

model reflect a concern for needs assessment, articulation, differentiation and content utilization. The outcomes, however, must be measured in changed teacher and student behavior as well as changes in program materials and facilities which make teacher and student change possible. These outputs are not treated in this general instrument because they are program oriented and will depend on the objectives, resource inputs and operations of the instructional programs actually used by teachers.

Evaluation

The evaluation component of the model provides two types of feedback. Summative evaluation measures student learning (behavior change) against instructional objectives for the purposes of assigning grades or identifying areas of remediation. The treatment of the resources as part of evaluation constitutes the summative evaluation function. This evaluates the teacher, the student, and the facilities of instruction using the evaluation instruments of the instructional program.

Formative evaluation measures the instructional system itself so that each or all of the instructional components of the system can be evaluated for the purposes of improving the instruction in the future. The treatment of the general instructional model constitutes the formative evaluation function. The evaluation will indicate whether the various components of the instructional process should also share the glory or blame for the learning that has or has not taken place in instruction. The feedback loop insures that corrective measures will be taken to improve instructional programs from one teaching period to the next. It is this formative aspect of evaluation that is treated in the variables above.

PROCEDURES AND DATA COLLECTION

The procedures and collection of data for this study were relatively simple in nature. All teachers in the district were asked to respond to the 50 item questionnaire entitled "Instructional Assessment Instrument" (see figure 2, page 8). Responses were recorded on a standard IBM type answer sheet. The information on the answer sheets was then transferred to computer cards and various analyses of the data were run. In Part II of this report, the results of the study and various interpretations will be presented.

The percentage of returned questionnaires was well over 95%. This fact speaks well for the overall response by the teachers to this study.

FIGURE 2

INSTRUCTIONAL ASSESSMENT INSTRUMENT

DEVELOPED BY

ROBERT B. PRATT

JOSEPH F. LAMBERTI

UNIVERSITY OF NORTHERN IOWA

INSTRUCTIONAL ASSESSMENT INSTRUMENT

For each statement below mark the appropriate space on the answer sheet which gives your assessment of the instructional practices of your school system or classroom. Some items are designed to solicit your impression of the district's overall practices while others are restricted to your individual situation. Please note that numbers on the answer sheet run horizontally.

a almost always the case
b generally the case
c occasionally the case
d seldom the case
e almost never the case

1. The system's facilities support rather than hamper the achievement of the school's instructional goals and objectives.

2. The districtwide goals and objectives are presented in a way that assists staff members in developing a sequentially based instructional program.

3. As a rule, the staff can justify to the community the value of the instructional program in light of the demands it makes on the community's time, energy and financial resources.

4. I attempt to adapt instructional materials to changing social conditions, promoting in students the knowledge, skills and processes necessary to cope with their changing world.

5. My instructional activities build on one another providing continuity in content and cognitive skill development.

6. The school system's instructional goals and objectives are determined by the faculty with minimum influence from the community and/or administration.

7. Systemwide instructional objectives are communicated to students to inform them of the behavior expected as a result of the instructional program.

8. My instructional activities involve a variety of educational resources (community-school-student) in implementing my program objectives.

9. Improvement in my instructional practices is based on self-evaluation as well as student evaluation.

10. The curriculum materials used systemwide are adapted to the various goals and objectives of the system.

11. As a rule, I can justify my instructional program in terms of sound subject matter knowledge, skills and processes.

12. The school system's instructional goals and objectives are determined collectively through parent, student and staff involvement in instructional planning.

13. I utilize instructional activities which encourage the types of learning identified as important in my instructional objectives.

14. My instructional evaluation suggests ways of improving the evaluation instruments used from one instructional period to the next.

15. The school system's instructional goals and objectives are determined by the curriculum materials that are available rather than by cooperative planning.

16. As a rule, the curriculum materials I use in instruction undergo some type of analysis as to their validity and suitability for classroom use.

17. The instructional materials used systemwide provide the teacher-student interaction necessary to accomplish systemwide goals and objectives.

18. The teaching strategies I use in instruction help develop higher levels of student thought (ie: inferring, generalizing, analysis).

19. The school system's instructional goals and objectives are determined by conditions dictated by time, or space, or physical facilities.

20. The school's facilities are flexible enough to accommodate the scope and range of learning experience necessary to accomplish systemwide goals and objectives.

21. Facilities are flexible enough to provide space for teacher-student conferences.

22. The focus of the school system's instructional goals and objectives promotes learning as a goal of education rather than simply covering content.

23. I use instructional evaluation to encourage systematic improvement in the way learning takes place from one instructional period to the next.

24. As a rule, the materials I use in instruction embody what subject matter specialists would define as intellectually sound content.

25. My instructional activities capitalize on the potential ability of some students to contribute to classroom learning of other students.

26. I attempt to sequence instruction so as to build on students entering knowledge, skills, and attitudes.

27. As a rule, the facilities available to me allow freedom to adapt to changing societal needs and differing student goals and aspirations.

28. As a rule, the staff can justify to the students the value of the instructional program in light of student and societal needs.

29. The School system's goals and objectives are the major criteria that determine staff recruitment, selection, and assignments.

30. As a rule, I can present my subject matter in a way that raises the level of student thinking in the classroom.

31. The districtwide evaluation programs measure and encourage the same range of student behaviors and levels of performance outlined in the district wide goals and objectives.

32. Students are expected to transfer the subject content (concepts, generalization, theories) they learn in class to practice outside the classroom.

33. The environment in which my instruction takes place encourages active student involvement in the process of learning.

34. I attempt to treat students as participants in the instructional process in a way that doesn't interfere with their feelings of selfworth and individuality.

35. As a rule, my instructional activities provide practice in modes of behavior necessary for dealing with the world outside the classroom.

36. As a rule, I can sequence instruction to build on what students already know.

37. My schedule is flexible enough to provide time for group planning with other teachers.

38. As a rule, the instruments I use to evaluate student performance discriminate (ie: separate and group students) according to meaningful differences in student performance.

39. Facilities are flexible enough to provide alternative learning environments for the remediation and treatment of specific learning disabilities.

40. As a rule, I can vary my teaching strategies to accommodate students who have special problems.

41. Space can usually be found for differing sized groups of students in order to facilitate their varying instructional needs.

42. Attempts other than casual observation are made to to formalize the procedures by which students entering background and capabilities become the starting point in learning.

43. The curriculum material I use encourages a variety of thinking modes including inductive, deductive, and problem solving patterns of thought.

44. As a rule, school facilities can be altered from one time period to the next to improve instruction.

45. My instructional activities are sequenced in a way that the experience a student has in one activity prepares that student for the activities that follow.

46. As a rule, instructional evaluation results in changes in program objectives from one instructional period to the next.

47. As a rule, instructional evaluation is ongoing and encourages an everchanging mix of the instructional resources used.

48. The school's facilities are flexible enough to allow student learning in a variety of social, interest and academic grouping.

49. The various aspects of evaluation are interrelated so that weaknesses in one component of instruction (ie: objectives, resources, activities) suggest avenues of improvement in other components.

50. My goal of education is best represented by:
    a Growth, through the reconstruction of experience, not only reflects the nature of education, but its goal as well.

    b The goal of education is truth which is absolute, unchanging and universal.

    c The goal of education is to develop the uniqueness of each individual student.

    d The goal of education is to provide a framework of knowledge for the student against which new truths can be gathered and assimulated.

PART II

RESULTS OF THE STUDY

DATA ANALYSIS AND INTERPRETATION

The first analysis of data that was done was to simply calculate the mean response to each item on the questionnaire. Table 2 (page 13) includes this data. There is a breakdown by instructional level and then an overall mean was calculated for each item. The main reason to include this rather simple analysis is to give the instructional leaders of the school district a chance to see how the teachers responded to each item on the questionnaire. For example, it might be of interest to know how the teachers felt about item #7:

> "Systemwide instructional objectives are communicated to students to inform them of the behavior expected as a result of the instructional program."

A quick check of the overall response to this item reveals a mean of 2.869. On a scale of 1-5 (positive to negative), the authors perceive this as being a relatively negative response. If school leaders think that communicating overall district educational objectives to students is a priority that the district wishes to address, then it is obvious that htis is an area of concern, at least as far as the teachers perceive it.

Another example of teacher concern that may lead to in-service activity is question #12. The total elementary staff responded to this item with a mean of 3.377. Question twelve reads:

> "The school system's instructional goals and objectives are determined collectively through parent, student and staff involvement in instructional planning."

A concern of this magnitude might indicate a need for the elementary teachers to plan ways to involve parents and students in designing

TABLE 2
GRINNELL COMMUNITY SCHOOL
Teacher Response to Individual Questions
(Weighted Means)

Item	Elementary	Junior High School	High School	Overall
1.	3.377	3.167	3.273	3.287
2.	2.434	2.917	2.545	2.607
3.	2.057	1.972	2.121	2.049
4.	1.528	1.694	1.667	1.615
5.	1.679	1.722	1.818	1.730
6.	3.250	3.690	3.450	3.430
7.	2.792	3.000	2.848	2.869
8.	2.000	2.629	2.333	2.273
9.	1.830	1.889	1.688	1.810
10.	2.094	2.030	2.242	2.118
11.	1.415	1.500	1.394	1.436
12.	3.377	2.630	3.273	3.298
13.	1.585	1.750	1.667	1.656
14.	2.192	2.417	2.281	2.283
15.	3.260	3.206	2.930	2.990
16.	1.792	1.778	1.697	1.762
17.	2.283	2.529	2.438	2.395
18.	1.981	2.000	1.909	1.967
19.	4.000	3.880	3.510	3.750
20.	3.434	3.639	3.636	3.549
21.	3.547	3.472	3.424	3.492
22.	2.170	2.200	2.152	2.174
23.	2.019	2.222	2.156	2.116
24.	1.755	1.743	1.688	1.733
25.	1.981	2.028	2.030	3.008
26.	1.547	1.694	1.576	1.598
27.	2.774	3.306	3.250	3.058
28.	2.019	2.057	1.879	1.992
29.	2.906	2.735	2.781	2.824
30.	1.906	1.861	2.000	1.918
31.	2.679	2.625	2.871	2.716
32.	1.830	1.944	2.212	1.967
33.	1.660	2.139	1.909	1.869
34.	1.623	1.778	1.455	1.623
35.	1.849	1.833	2.000	1.884
36.	1.623	1.611	1.788	1.664
37	2.868	3.556	3.606	3.270
38.	2.264	2.514	2.313	2.350
39.	3.415	3.139	3.636	3.393
40.	2.283	2.472	2.606	2.426
41.	3.698	3.417	3.455	3.549
42.	2.269	2.571	2.848	2.517
43.	1.962	2.114	2.152	2.058
44.	3.302	3.629	3.697	3.504
45.	1.755	1.778	1.818	1.779
46.	2.189	2.472	2.394	2.328
47.	2.000	2.056	2.063	2.033
48.	3.094	3.206	3.545	3.250
49.	2.635	2.375	2.613	2.557

educational programs. A close scrutiny of the instrument and Table 2 by administrators and faculty leaders could reveal a great many areas that could be of possible assistance in planning staff development activities.

The next procedure that was undertaken was to isolate parts of the model and reorganize the questions into sub-groups. Each sub-group of questions attempts to measure a small, distinct part of the overall instructional program. Table 3 (page 15) shows the questions that were included in each category, and Table 4 (pages 16-18) provides a brief narrative of what each category is attempting to measure.

After these categories were identified, sub-group means were calculated for each category by grade level. In addition to grade level means, a percentage of teachers from each level responding 2.5 or higher (on a scale from 1-5) was calculated. Table 5 (page 19) is a listing of the categorical means by grade level and also shows the percentage of teachers giving 2.5 or higher average ratings to the various categories. As stated earlier, the authors felt that any average score of 2.5 or higher was interpreted as a negative response.

Again this data needs to be carefully used. By referring to Table 4, administrators and faculty leaders may find categories that they feel are high priority areas. Once these priorities are listed, then a careful cross-referencing with Table 5 will be necessary. If a high priority category from Table 4 reveals a high mean or high percentage on Table 5, then an area of concern has been identified. It will then be up to the district to determine how it wants to address this concern. There are, of course, many different approaches to take.

Some suggestions along this line are related to involving as many parts of your constituency as feasible. Many of the concerns and problems identified by the teachers made reference to a feeling of isolation and a lack of communication

Table 3

OVERALL MODEL CATEGORIES

Planning Perspectives

Category	Questions
A	6, 12, 15, 19
B	1, 10, 22, 29
C	2, 7, 17, 20
D	3, 28, 31, 48
E	2, 3, 6, 29
F	7, 12, 22, 28
G	10, 15, 17, 31
H	1, 19, 20, 48
J	18, 33, 39, 43

Instructional Resources

Category	Questions
K	11, 30, 36, 40
L	4, 26, 32, 34
M	8, 16, 42, 45
N	21, 27, 37, 41

Instructional Operation

Category	Questions
O	4, 8, 11, 27
P	26, 36, 37, 45
Q	34, 40, 41, 42
R	16, 21, 30, 32

Evaluation

Category	Questions
S	3, 28, 31, 41
T	9, 24, 38, 44
U	5, 13, 25, 35
V	14, 23, 46, 47

Table 4

CATEGORICAL DEFINITIONS OF INSTRUCTIONAL MODEL

Planning Perspectives

The planning perspectives as defined by a school system would involve a systematic treatment of the entire instructional model prior to the teaching of any instructional program.

A. This category treats system-wide goals and objectives and indicates the source of these objectives. Questions 6, 12, 15, and 19 would assess the degree to which staff, students, programs and facilities influence the scope and breadth of the goals and objectives of the school system.

B. This category also treats system-wide goals and objectives but the focus is on how instructional resources are mobilized in behalf of the system-wide goals and objectives. Questions 1, 10, 22, and 29 explore whether staff recruitment, student learning, curriculum materials and school facilities help or hinder the accomplishment of district-wide goals and objectives.

C. This category explores the extent to which system-wide goals and objectives actually facilitate the type of learning they suggest as most important for the school system. Questions 2, 7, 17 and 20 explore the extent to which goals and objectives assist teacher planning, student learning, instructional encounters and facility utilization toward the accomplishment of system-wide goals and objectives.

D. This category explores the extent to which system-wide goals and objectives are used to justify, guide and direct the instructional program. Questions 3 and 28 determine if the staff is accountable through its objectives to the community and to the student. Questions 14 and 31 explores the evaluation based on system-wide goals and objectives, encouraging the type of learning suggested by these goals and objectives and whether teachers modify the evaluation instruments from one training period to the next.

E. This category explores how goals and objectives are used in instructional planning. Question 6 explores the extent to which teachers formulate the goals and objectives used in instruction. Question 29 asks if staff recruitment is a function of district-wide goals and objectives. Questions 2 and 3 explore the extent to which teachers use objectives to plan and evaluate instruction.

F. This category explores the degree to which students are a central consideration in the formulation, focus and function of the system-wide goals and objectives.

G. This category explores the degree to which curriculum material used in the system are a central consideration in the formulation, focus, and function of the system-wide goals and objectives.

H. This category explores the degree to which facilities determine the goals and objectives used, whether these facilities are a positive or negative input, whether they allow the range and scope of learning suggested by goals and objectives as important (and the degree of flexibility the facilities provide in dealing with instructional problems).

J. This category explores the teachers response to actual instructional programs used in the school. Question 18 explores the teacher's

methodological background as in Instructional Input. Question 33 explores the educational enrichment in which learning takes place. Question 43, explores the materials that are used in instruction, and question 39 explores the flexibility of the school facilities in responding to remediation efforts

Instructional Resources

The instructional resources available to the individual teacher (who is also an instructional resource) determine the quality and the quantity of learning that takes place in the teacher's instructional program. Resources are broadly defined as the inputs into the instructional system that must be considered if the range and scope of classroom learning is to match the range and scope of the instructional objectives. Teachers, students, curriculum resources and facilities are all parts of the Instructional Resources Component.

K. The treatment of the teacher as an instructional resource looks at the teacher as an educational practitioner who can utilize the social and psychological foundations of education to promote student learning. The questions 11, 30, 36, and 40 explore the teachers content background, their ability to sequence and individualize learning and their ability to raise the level of student thought through their instruction.

L. The treatment of the student as an instructional resource stresses the centrality of the student as an input into the instructional system. Questions 4, 26, 32, and 34 explore whether learning is student centered, sequential self-fulfilling, and applicable to the real world outside the classroom.

M. The treatment of the program variable as an instructional resource stresses prepared curriculum materials and/or learning activities used as an input into the instructional system. Questions 8, 16, 42, and 45 explore whether these materials are community inspired, sequential, individualized and subject to systematic analysis before they are used.

N. The treatment of facilities as an instructional resource stresses the role that physical surroundings play in helping or hindering the instructional process. Questions 21, 27, 37, and 41 explore the freedom school facilities provide for teachers, the time they permit for cooperative staff planning, the flexibility they provide for student grouping and the space they provide for teacher-student conferences.

Instructional Operations

The instructional operations of the model are the interactions that take place among the instructional resources to create the act of student learning that is central to the instructional system. This is the point in which teachers, students and facilities come together to constitute what is called the learning-thinking-acting process. This process is also commonly called "Teaching".

O. Needs assessment deals with the processes that make teachers accountable in thier instructional programs for their own behavior and that of their students.

P. Articulation is the relationship and interdependence that marks any well sequenced program. Vertical articulation may be the sequencing of a single subject and horizontal articulation may be the sequencing of two or more subjects.

Q. Differentiation is an organized plan for meeting individual student differences through differing assignments and grouping and through flexible

time requirements and evaluations that capitalize on the unique differences of students.

R. Content utilization for the teacher is the ability to select content that will maximize student learning. For the student, content utilization is the ability to apply content perspectives in the students own environment.

Instructional Outputs (behavior change)

If objectives are defined operationally then learning can be defined as the behavior change that results from the various instructional operations. Change must be planned so it comes about through an interaction between resource inputs and instructional operations. These interactions in the model reflect a concern for needs assessment, articulation, differentiation and content utilization. The outcomes, however, must be measured in changed teacher and student behavior as well as changes in program materials and facilities which make teacher and student change possible. These outputs are not treated in this general instrument because they are program oriented and will depend on the objectives, resource inputs and operations of the instructional programs actually used by teachers.

Evaluation

The evaluation component of the model provides two types of feedback. Summative evaluation measures student learning (behavior change) against instructional objectives for the purposes of assigning grades or identifying areas of remediation. The treatment of the resources as part of evaluation constitutes the summative evaluation function. This evaluates the teacher, the student, and the facilities of instruction using the evaluation instruments of the instructional program.

Formative evaluation measures the instructional system itself so that each or all of the instructional components of the system can be evaluated for the purposes of improving the instruction in the future. The treatment of the general instructional model constitutes the formative evaluation function. This evaluation will indicate whether the various components of the instructional process should also share the glory or blame for the learning that has or has not taken place in instruction. The feedback loop insures that corrective measures will be taken to improve instructional programs from one teaching period to the next. It is this formative aspect of evaluation that is treated in the variables below.

S. This category explores evaluation results in improved instructional planning leading to improved objectives, better resource utilization, better learning activities and more responsive evaluation instrument.

T. This category explores if evaluation leads to improved use of instructional resources whereby teachers engage in self analysis, improved summative evaluation, instructional materials analysis and improved facility utilization.

U. This category explores if evaluation leads to better learning activities. Do the activities really promote the learning identified as important in the instructional objectives. Are the activities sequenced to optimize learning output? Do the activities allow for brighter students to help slower students and do the activities really provide the learning students need to cope with their world.

V. This category explores the individualized nature of evaluation as it applied to each of the components of the general instructional model. Does a problem in one component of the model suggest avenues of improvement in the others?

TABLE 5

GRINNELL COMMUNITY SCHOOL

CATEGORICAL TEACHER RESPONSE BY GRADE LEVEL

	Elementary		Junior High		Senior High		Overall	
	Percent	Mean	Percent	Mean	Percent	Mean	Percent	Mean
A	94.3	3.44	86.1	3.35	100.00	3.29	93.4	3.36
B	66.0	2.64	55.6	2.44	69.7	2.59	63.9	2.57
C	79.2	2.74	83.3	2.99	78.8	2.84	81.3	2.84
D	39.6	2.23	22.2	2.18	36.4	2.23	33.6	2.21
E	77.4	2.66	77.8	2.79	69.7	2.70	75.4	2.72
F	66.0	2.59	66.7	2.56	54.5	2.54	63.1	2.57
G	66.0	2.59	58.3	2.39	66.7	2.56	63.9	2.56
H	71.7	2.74	69.4	2.83	84.8	2.90	74.6	2.81
J	45.3	2.25	44.4	2.31	51.5	2.40	46.7	2.31
K	3.8	1.81	8.3	1.86	9.1	1.94	6.6	1.86
L	1.9	1.63	5.6	1.78	6.1	1.73	4.1	1.70
M	15.1	1.94	30.6	2.15	45.5	2.17	27.9	2.07
N	79.2	3.22	88.9	3.44	97.0	3.41	86.9	3.34
O	22.6	1.93	38.9	2.26	27.3	2.14	28.7	2.08
P	17.0	1.95	36.1	2.16	27.3	2.20	25.4	2.08
Q	64.2	2.46	58.3	2.54	66.7	.59	63.1	2.52
R	41.5	2.27	50.0	2.26	39.4	2.33	43.4	2.28
S	52.8	2.46	44.4	2.33	66.7	2.56	54.1	2.45
T	45.3	2.29	55.6	2.39	45.5	2.30	48.4	2.32
U	9.4	1.77	8.3	1.83	12.1	1.86	9.8	1.82
V	28.3	2.09	50.0	2.29	33.3	2.17	36.1	2.17

Anything that could be done to help all parts of the system feel as though they were involved in the decision-making process would be helpful. With an attempt at grass roots involvement, trust and cooperation should more easily follow.

Another way to interpret these data would be to take the top areas of concern as revealed by high means or a high percentage of teachers responding negatively (see Table 6, page 21). It would be a simple matter to then consider these to be major areas of concern.

However, caution should be exercised in following this approach. Because a category revealed data that shows teachers do not feel certain tasks are being addressed in the district, this does not mean that the category is necessarily a high priority item. Again, the leaders of the district should consider the priority concerns of the teachers themselves rather than following too strictly the Table 6 data.

Figures 3 through 6 (pages 22-25) represent another view of the data presented in Tables 5 and 6. These are included to provide a graphic illustration of the categories that were of most concern to the teachers of the district. Here again, a close cross-reference with Table 4 "Category Definitions" is in order to make sure that the "high spots" that show up in the graph are priority items that the district wants to address.

The Curriculum Committee has received copies of all tables and figures presented in this study.

TABLE 6

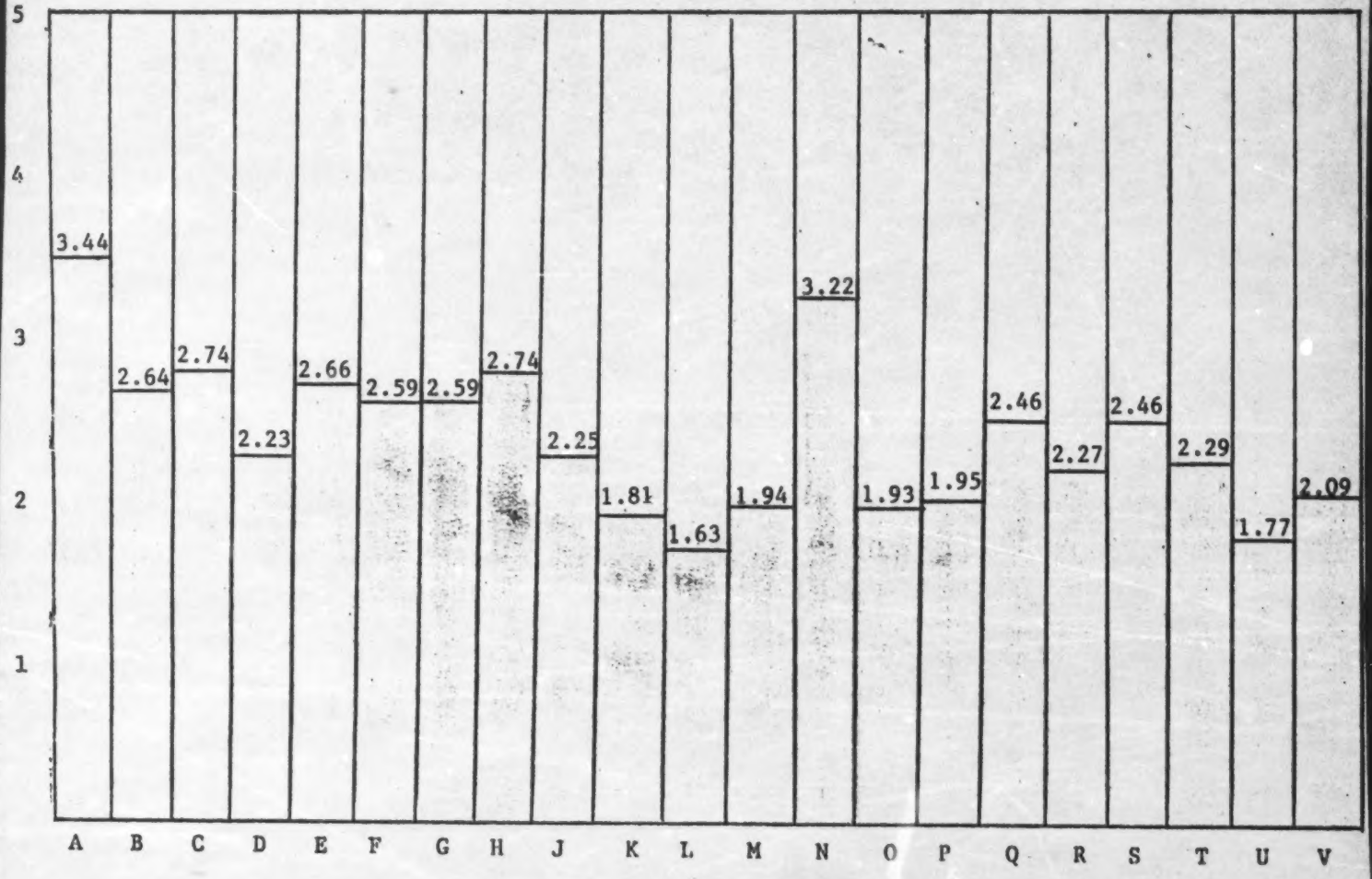
GRINNELL COMMUNITY SCHOOL

RANK ORDER

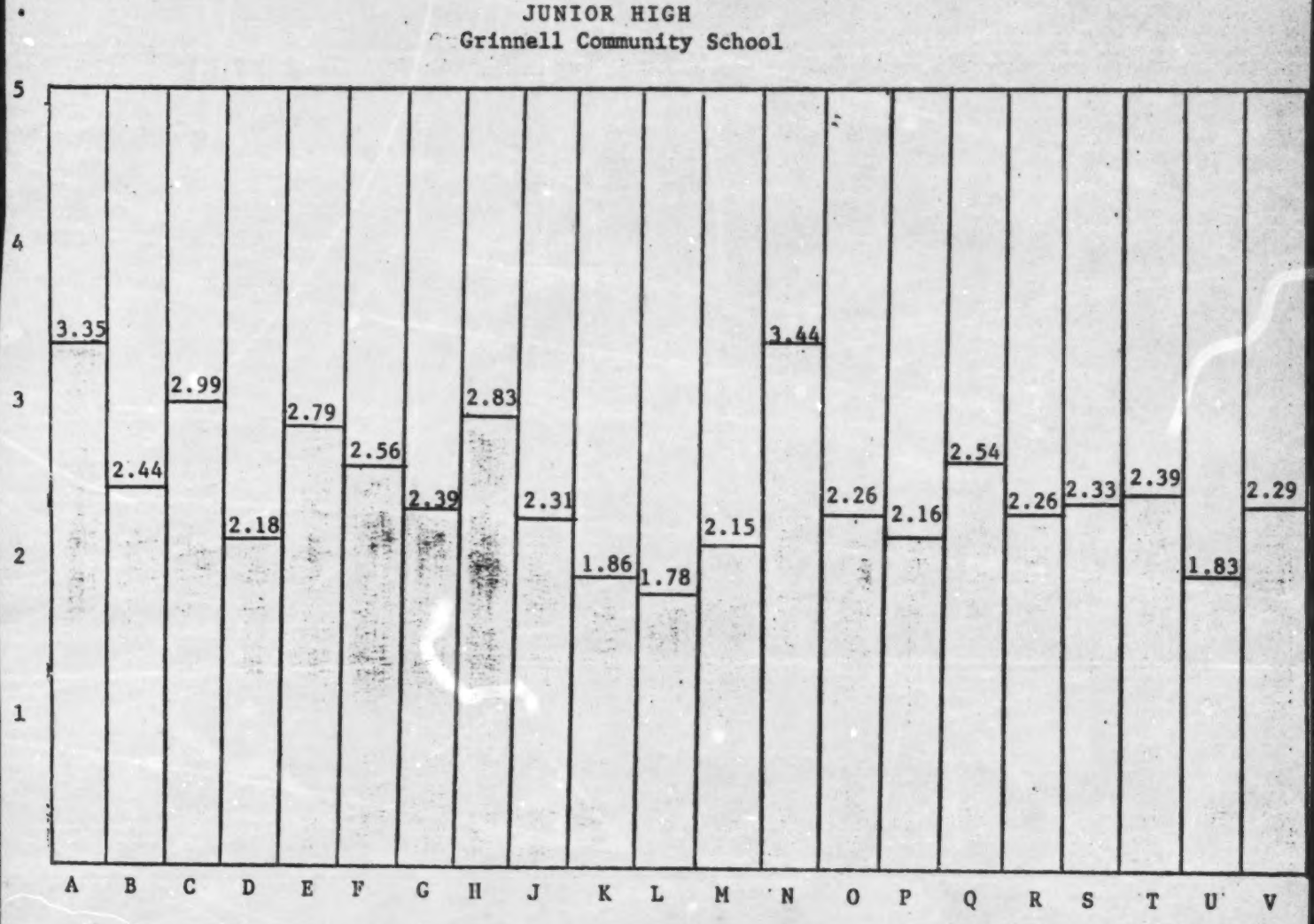
CATEGORICAL TEACHER RESPONSE BY GRADE LEVEL

Elementary			Junior High			Senior High			Overall		
Percentage		Mean	Percentage		Mean	Percentage		Mean	Percentage		Mean
A	94.3	3.44	N	88.9	3.44	A	100.0	3.29	A	93.4	3.36
C	79.2	2.74	A	86.1	3.35	N	97.0	3.41	N	86.9	3.34
N	79.2	3.22	C	83.3	2.99	H	84.8	2.90	C	81.3	2.84
E	77.4	2.66	E	77.8	2.79	C	78.8	2.84	E	75.4	2.72
H	71.7	2.74	H	69.4	2.83	B	69.7	2.59	H	74.6	2.81
B	66.0	2.64	F	66.7	2.56	E	69.7	2.70	B	63.9	2.57
F	66.0	2.59	G	58.3	2.39	G	66.7	2.56	G	63.9	2.55
G	66.0	2.59	Q	58.3	2.54	Q	66.7	2.59	F	63.1	2.57
Q	64.2	2.46	B	55.6	2.44	S	66.7	2.56	Q	63.1	2.52
S	52.8	2.46	T	55.6	2.39	F	54.5	2.54	S	54.1	2.45

ELEMENTARY
Grinnell Community School

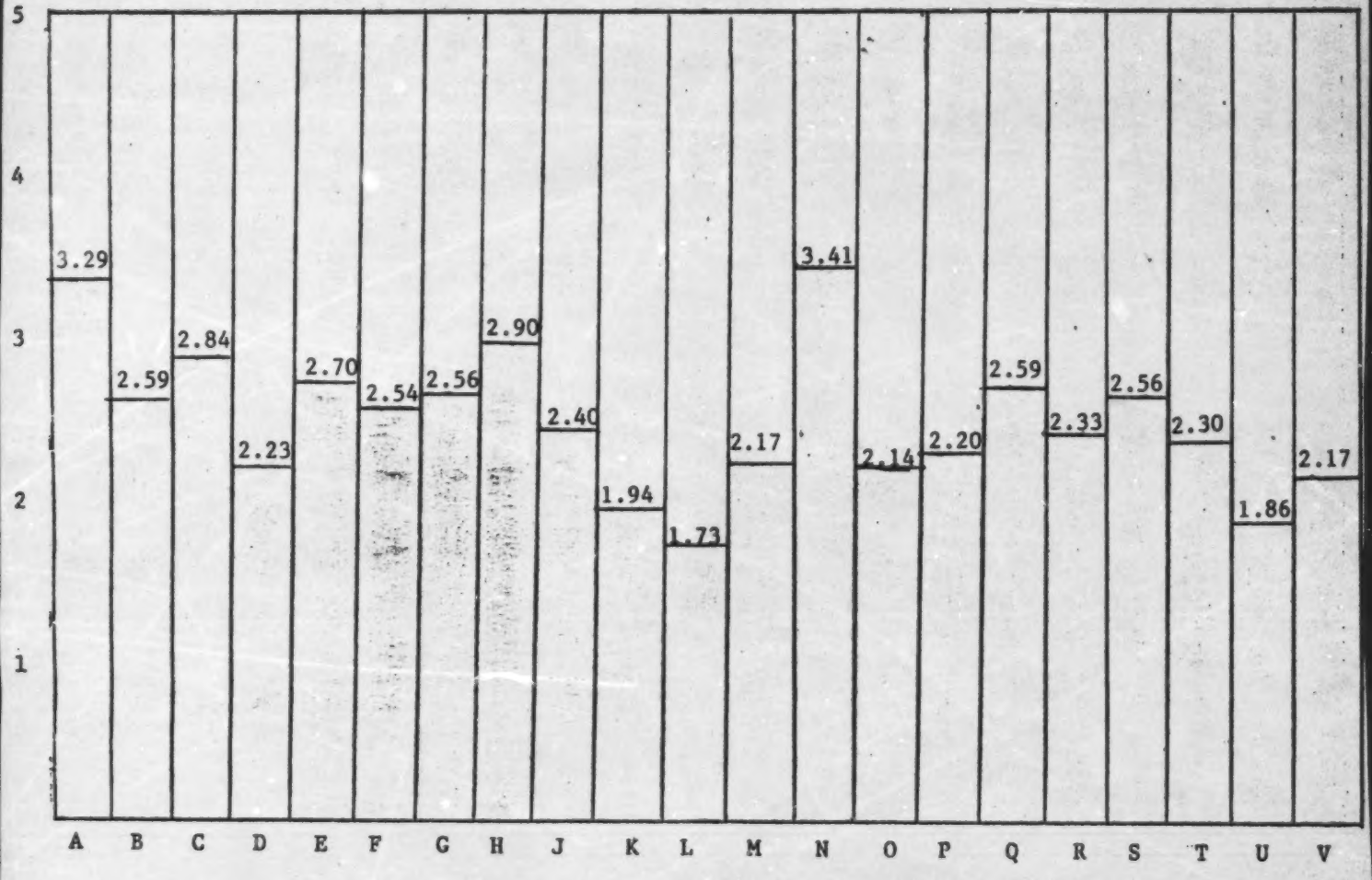


DISTRIBUTION OF CATEGORICAL MEANS



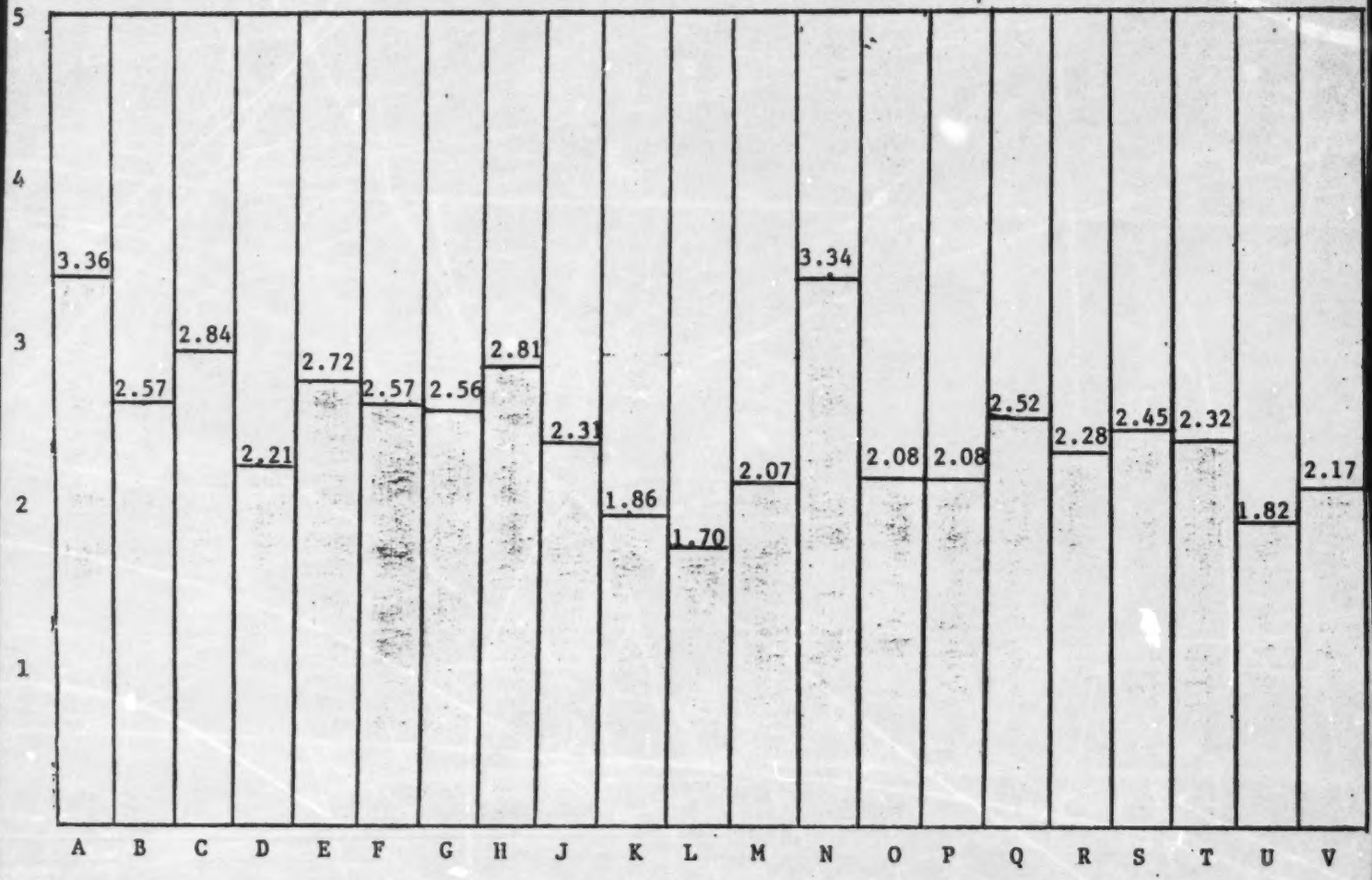
DISTRIBUTION OF CATEGORICAL MEANS

SENIOR HIGH
Grinnell Community School



DISTRIBUTION OF CATEGORICAL MEANS

OVERALL
Grinnell Community School



DISTRIBUTION OF CATEGORICAL MEANS

PART III

RECOMMENDATIONS AND CONCLUSIONS

RECOMMENDATIONS

The study and its results should not be construed to be the end of Grinnell's Needs Assessment, but the beginning of a planned program to bring about instructional improvement for the district. The difficult task begins now. Teachers, administrators, students and the community must sit down with the data and start addressing the concerns revealed by the instrument and its interpretation. Cooperation of all parties plus a coordinated, long-range plan will need to be designed if the task is to be accomplished. Following are some suggestions that perhaps could begin this process. Please be reminded that these are suggestions and the actual steps taken should be implemented only after much communication has been exchanged among all parties concerned.

Short Range Goals

1. Review grade-level and course objectives to insure articulation between all programs and to limit the number of goals to concentrate on mastery of a few rather than a superficial average of many.
2. Establish a task force of teachers and administrators to investigate avenues for increasing two way communications between them.
3. Develop community based subject area advisory groups which could devise various application opportunity to employ subject area learning in the community.
4. Arrange inter-school visits in all subject areas both within and outside the district.
5. Establish materials selection committees as part of long-range curriculum planning with emphasis on using a multi-text approach.
6. Establish task force to investigate avenues of securing para-professional help in the schools - volunteer or salaried.

7. Investigate feasibility of having K-12 Parent-Teacher Conference days.

Long Range Goals

1. Continue work with subject area curriculum committees with the charge to concentrate on vertical and horizontal articulation.
2. Establish task force to investigate ways to get the parents and community more involved in the schools operations.
3. Investigate ways to improve school-community and community-school communications.
4. Plan in-service activities to investigate ways to meet the needs of all special students with whom teachers came in contact - especially remedial and accelerated students.
5. Arrange meetings with curriculum committees of other schools for information excahnge about on-going programs.
6. Investigate and pursue avenues for furthering the individualization of instruction - provide the time to prepare materials for this purpose.
7. Develop a program of curriculum enrichment using the community resources available as an extension of the school program.
8. Develop systematic follow-up studies of students so that the information can be incorporated into on-going planning and development.

CONCLUSIONS

It is a difficult task to attempt to make any concluding statements to what the authors feel is work in progress. If the study has served its purpose then, indeed, it will be only a first step in the overall task that will be undertaken.

The following statements reflect some observations that the authors made about the Grinnell Community School District during the course of this study.

They should be accepted as tenative statements about the overall instructional program of the district.

1. The response to items and categories related to facilities was so overwhelmingly negative that it overshadowed other concerns. Hopefully, the recent bond approval and plans to remedy part of the situation will satisfy most of the concerns.
2. There appears to be an overriding concern among the teachers of the district about the development and articulation of system-wide goals and objectives.
3. There seems to be a lack of coordination between stated goals and objectives and the actual activities conducted in the overall instructional program.
4. The selection and use of curriculum materials should follow the stating of philosophy and objectives rather than dictate the style of instruction that takes place.
5. Although teachers indicate that they are personally striving to differentiate instruction according to needs, the need for more assistance in this area is indicated.
6. As in many human enterprises, communications can be improved between and among all constituencies of the school district.
7. The community component should be included in the educational program through a concerted and planned effort on the part of the professional educators.

Grinnell Community School District appears to be a good district striving to get better. Hopefully, the information provided in this report will help you on your way.